

KEEP IT HARDY

A CARE GUIDE FOR OUR NEIGHBORHOOD POND

As neighbors in the immediate vicinity of Hardy Pond, we share special environmental responsibilities; our day-to-day actions have a considerable impact on the complex and sensitive ecosystem around the pond. Even if you live a few blocks away, the natural slope of the watershed combined with storm drains that empty into the pond can make supposedly harmless activities a threat. Washing cars, making home repairs, and maintaining lawns and gardens may all contribute to the pollution of Hardy Pond.

Please take a few minutes to discover the simple actions that each of us can take to protect our environment and ensure a hardy future for the pond.

Keep It Hardy is produced by the Hardy Pond Association
a project of the Waltham Land Trust

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Hardy Pond Association Statement of Purpose

The Hardy Pond Association was organized by area residents in 1991 to protect Hardy Pond and its natural environment, recreational resources, and water quality. Its goals are to:

- promote and perform long-term maintenance and stewardship of the pond;
- clean up and protect the adjoining wetlands and shoreline;
- encourage proper conservation practices by abutters and users of the pond;
- keep the neighborhood residents aware of pond-related issues and events;
- initiate a comprehensive watershed and pond management study;
- pursue funding to maintain and improve the pond;
- develop Hardy Pond as an environmental education resource for Waltham.

Donations and Membership

The Hardy Pond Association (HPA) recently became a project of the Waltham Land Trust (WLT) and ceased operating as a separate Massachusetts nonprofit corporation. You can support our work in two ways: Become a member of the Waltham Land Trust — your membership dues pay for all of the open space protection work of the WLT, including pursuing the goals of the Hardy Pond Association. In addition, the WLT has created a Hardy Pond Fund to be used solely for improving and protecting Hardy Pond and the adjoining Hardy Pond Conservation Area. Earmark your contributions to the WLT for the “Hardy Pond Fund” to be sure they will be used exclusively for Hardy Pond activities: maintaining pond area signage, monitoring pond conditions, advocacy for pond improvements, coordinating the annual cleanups, and responding to neighborhood concerns.

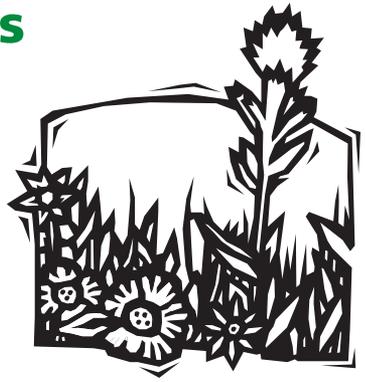
Don't Feed the Weeds

Excessive phosphorus loading is a fundamental cause of Hardy Pond's explosive aquatic weed growth. Phosphorus is found in rocks and soil as well as in plants and animals. However, human activities and development can increase phosphorus in storm water run-off to levels ten times its natural concentration.

In a body of water such as Hardy Pond, phosphorus feeds microscopic algae and other aquatic plants. When they die, they fall to the bottom and decompose. This depletes oxygen levels in the water which then frees phosphorus that is trapped in the sediment.

This cycle accelerates excessive plant growth and the filling-in of the pond, a process known as eutrophication. The low levels of dissolved oxygen can kill fish in the pond. It also results in the foul stench that residents have noticed at times during the late summer months around Hardy Pond.

It is important for everyone to reduce the addition of phosphorus to the pond. A typical 50 lb. bag of lawn fertilizer contains five pounds of phosphorus; that's enough to result in 50,000 pounds of aquatic weed growth in Hardy Pond!



Steps to prevent phosphorus from entering the pond:

- set up a vegetated buffer zone (VBZ);
- follow recommended lawn and yard care practice;
- garden with a "less is more" approach and;
- avoid the outdoor use of harmful detergents and household chemicals.

Prevent pet waste from polluting Hardy Pond and the Charles River Watershed!

Dog droppings produce billions of fecal coliform bacteria, which pose a serious health risk to children, adults, and pets. To prevent waste and bacteria from entering storm drains and the pond, it's essential to pick up vigilantly after your dogs and cats. Immediately remove waste/droppings from your yard, and from the street while on walks with your pet—and never discard pet waste into storm drains.

The Massachusetts Department of Environmental Protection recommends discarding pet waste in a sealed plastic bag in the trash.

For more information about proper disposal (and health risks) of pest waste, go to www.mass.gov/dep/water/resources/petwaste.htm.

Vegetated Buffer Zones



One of the most effective means of preventing phosphorus overload is to maintain a vegetated buffer zone (VBZ). If you live near the shore or wetlands of Hardy Pond, you can help improve the water quality and reduce aquatic weed growth by planting a buffer zone between your lawn and the pond.

Vegetated buffer zones help filter nutrients and pollutants before they reach the pond, minimizing the impact of pesticides and

fertilizers from our lawns and oil and grease from streets and driveways. Native shrubs, ground covers, and trees in the buffer zone use the excess nutrients and their roots to slow the surface run-off, providing cleaner water to the pond. Lawns are inadequate buffers, for they only hold soil in place. Grass is not thirsty enough and grass roots are not deep enough to absorb even a fraction of the run-off during a rainstorm. With a VBZ, lawn maintenance will be reduced, wildlife habitats will increase, and visual diversity will be added to the landscape.

While it is most important for shoreline and wetland abutters to plant a buffer zone, nearby residents can greatly aid in this effort by planting a similar area on the side of their yard which drains towards the street or Hardy Pond.

An effective buffer zone can be created by following these suggestions:

- Use a variety of native shrubs, ground cover, and trees—because in combination they take up the most water and nutrients. See the next page for plant suggestions.
- Make the buffer zone as wide as possible.
- Leave the VBZ undisturbed—do not rake the leaves and limit foot traffic to a bark-mulched winding path.
- Do not use fertilizers or pesticides in the VBZ.

Suggested Buffer Zone Plantings

Trees

- Red Maple (*Acer rubrum*)
- Birch (*Betula* species)
- Black Gum or Tupelo (*Nyssa sylvatica*)
- White Ash (*Fraxinus americana*)
- Willow (*Salix* species)

Shrubs

- Shadbush (*Amelanchier canadensis*)
- Sweet Pepperbush (*Clethra alnifolia*)
- Red Osier Dogwood (*Cornus stolonifera*)
- Witherod (*Viburnum cassinoides*)
- Highbush Blueberry (*Vaccinium corybosum*)
- Fetterbush (*Leucothoe racemosa*)
- Swamp Azalea (*Rhododendron viscosum*)
- Buttonbush (*Cephalanthus occidentalis*)

Ground Covers

- Ferns (many species)
- Dewberry (*Rubus hispidus*)
- Pachysandra (many species)
- Daylily (*Hemerocallis*)



Lawn Care, Garden, and Yard Waste

Without realizing it, residents near Hardy Pond that strive for the “perfect lawn” may pose several threats to the life of the pond. A closely-cropped lawn that slopes down to the water’s edge does little to trap phosphates or petroleum in the storm water run-off from driveways and roads. Many finely manicured lawns are regularly over-treated with fertilizer and pesticides. While fertilizers can give a healthy-looking green lawn, they contain nutrients which can also promote a very green pond. Careless pesticide applications to a yard can result in toxic effects on aquatic life. Thousands of people live in Hardy Pond’s watershed. The effects of fertilizer and pesticide use is cumulative and damages this precious natural resource. If you must use these products, do so sparingly and follow the pond protection guidelines on the next page. Easy and inexpensive alternatives to chemical applications can be found online or in a organic gardening book at your local nursery or library.

Lawn care, garden, and yard waste recommendations:

- If possible, avoid fertilizing your lawn. Try mulching to get the desired results. If you must use fertilizer, use one that contains no phosphorus. Liquid fertilizer, when properly applied, can minimize run-off of excessive nutrients and phosphorus.
- Avoid application of fertilizers during the summer. Turf grass demand for nutrients is low at this time and unused fertilizer is more likely to end up in the pond.
- If you hire a lawn care company, find one using Integrated Pest Management (IPM). Lawn care companies offering IPM use focused chemical treatments to target specific pests and their areas of infestation, rather than indiscriminate routine “preventive” spraying.
- Keep vegetable gardens small and avoid the use of herbicides and pesticides, which are harmful to fish, wildlife, pets, and children; many natural alternatives are available. Consider joining the Waltham Community Garden instead. See Resources, page 11 for information.
- Avoid using fertilizers or pesticides before a rainstorm. Be aware of the weather forecast.
- Avoid over-application of fertilizers. Have your soil tested to determine what additional nutrients are needed. Contact the Soil Testing Services at the University of Massachusetts at Amherst, (413) 545-2311, or try the U.S.D.A. Soil Conservation Service, (617) 423-1175, <nrcs.usda.gov>.
- Read labels to determine correct pesticide application amounts. More is not always better! Heed all warnings, especially those concerning use near waterways.
- Never dump yard waste into the wetlands, water, or along the shoreline of the pond—it is illegal and it contributes excess nutrients which promote undesirable aquatic weed growth.
- A convenient way to dispose of yard waste is to participate in Waltham’s curbside recycling program. Leaves, branches, grass clippings, and other debris can be loaded into paper yard waste bags (available in supermarkets and hardware stores) or into clearly marked trash barrels. For information on your street’s yard waste schedule, call 781-314-3855 or see <www.city.waltham.ma.us/recycling>.



Storm Drains

Whatever's left on the street today will wash into Hardy Pond tomorrow. When it rains, storm drains collect run-off from the street and carry it into the pond. Petroleum from an oil change or a leaky transmission, coolant from a flushed radiator, or phosphate-loaded detergent from washing the car will all eventually make their way into Hardy Pond.



You may have noticed that storm drains near the pond carry the cautionary message “No Dumping; Drains to River.” Hopefully this will serve as a reminder to residents not to dump yard waste, toxic chemicals or used motor oil into the drains.

To prevent toxins from entering the storm drains around Hardy Pond, follow these guidelines:

- Storm drains are designed for collecting storm water run-off only; never use them for dumping automotive or household wastes.
- Never spill oil or leave residue from solvents or chemicals on your street or driveway.
- Check for and repair any oil leaks under your car or truck.
- To eliminate the possibility of detergents or toxins in water run-off, wash the car at a carwash.
- Leaves, sand, litter, and other street debris should be thrown away or recycled, not swept into the storm drains, which is illegal.
- Try to educate your neighbors on this issue if you notice improper practices.

Recreation

Hardy Pond hosts an abundance of recreational activities. Season upon season, boating, fishing, wildlife watching, as well as ice skating and hockey games have been enjoyed by the community around the pond.

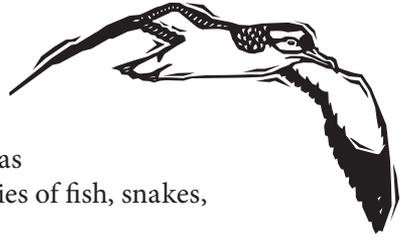
To protect the future of Hardy Pond and its diverse inhabitants, we must observe the principles of conservation and practice thoughtful and responsible use of its waters.

- Leave no litter in the water or on the ice. Make a habit of removing all trash from the pond, even if it was dumped by someone else. Debris such as styrofoam, plastics, bottles, broken glass, cigarette butts, and fishing line are harmful to wildlife and contribute to the pollution of Hardy Pond.
- Report any fires on the pond to the Waltham Police and Fire Departments. Fires on the winter ice are hazardous and illegal. Fires on the ice have been ignited with gasoline and other flammable solvents—these are highly toxic to aquatic life. Debris on and in the ice is a danger to skaters. When the ice melts, ashes and unburned debris sink into the pond where it gradually decomposes, adding nutrients and contaminants, and accelerates aquatic weed growth.
- Gasoline powered motorboats are prohibited on Hardy Pond. Because the pond drains and refills very slowly, it is particularly vulnerable to petroleum contamination. Any gas or oil leaked from a motorboat will remain in the water and the sediment, polluting the pond for years to come. Electric trolling motors are permitted; canoes and kayaks are ideal for traversing the pond and enjoying the scenery around it.
- Avoid lowering boat trailers into the pond as they often carry invasive nuisance weeds from other bodies of water. Carry boats into the pond and always check their hulls to remove hitchhiking seeds and plants.
- Don't forget to take hockey nets, chairs, or other items off of the ice or they may sink with unexpected warm weather.



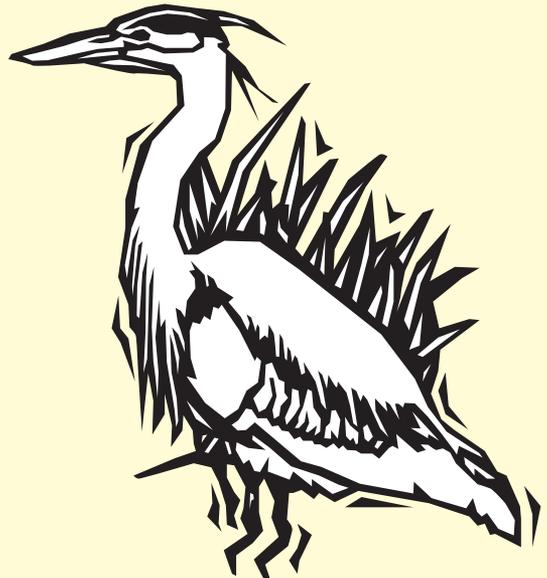
Wildlife

Hardy Pond is home to an incredible variety of wildlife including birds such as ducks, herons, and osprey; mammals such as muskrats and woodchucks; and many species of fish, snakes, frogs, and turtles.



To make sure Hardy Pond's wild inhabitants continue to make their homes here, follow these guidelines:

- Backyard bird feeders may be harmless, but don't feed other wildlife, including geese and ducks. Feeding waterfowl disturbs their community composition, increasing contamination; non-nutritional foods like bread can actually lead to starvation of wild birds.
- Stay away from nesting areas. In particular, Hardy Pond's swans like their privacy, but be sure to stay clear of all nests, burrows, and egg beds.
- Don't disturb or approach wildlife. To view wildlife, use binoculars or a camera's zoom lens to capture the moment without disturbing the subject.
- Turtles are not toys! Some of the big snapping turtles are 100 years old! They deserve our respect and should not be played with. Snapping turtles bite.
- When fishing Hardy Pond, practice catch-and-release. Also, be sure to take any remnants of monofilament line with you as this is very hazardous to wildlife.
- ■ If a bird, reptile, or animal is a nuisance or is injured or sick, call the Waltham Animal Control at 781-314-3596. Let them handle the problem.



Caution: Hazardous Materials

During several severe New England floods, many households around the pond hurried to remove possessions from the rising water in their basements. Unfortunately, in several instances toxic substances such as gas, oil, pesticides, fertilizers, paints and other toxic chemicals leaked into the flood waters.



To prevent contamination of the water in and around Hardy Pond:

- Store gas powered equipment and hazardous materials in a safe, secure area above the high-water mark.
- Dispose of paint and solvents in a responsible manner; never pour them down the drain, into storm sewers, or onto the ground.
- Latex paint can be dried out in a well-ventilated area, then put in the trash.
- Let used paint thinner settle. Once it separates, pour off the clear liquid for reuse. Let the solid residue dry out in a well-ventilated area, then put in the trash. Use caution as these materials are highly flammable.
- Used motor oil should be taken to a service station or auto parts store for recycling.
- Avoid using or purchasing detergents and household chemicals that contain phosphates.
- When possible, avoid purchasing paint strippers, solvents, or other highly toxic or flammable materials; they're dangerous to have around and are difficult to dispose of. Look for solutions that are more environmentally friendly and purchase products that are less toxic.
- The City of Waltham Recycling Department has found three places that will take used motor oil and four places that will take batteries.



Emergency and Resource Phone Numbers



- If you see any hazardous material in the pond or wetlands, call the Waltham Fire Department (911) then call the Department of Environmental Protection Emergency Response (888) 304-1133.
- Waltham Fire Department, 911, for in-pond rescue, reporting ice fires. For non-emergency situations (781) 893-4105.
- Waltham Police, 911, to report dumping, gas-powered boats, or emergencies. For non-emergency situations (781) 893-3700.
- Environmental Strike Force, to report environmental violations: esf.hotline@mass.gov; (617) 556-1000.
- Fisheries and Wildlife, (508) 389-6330, fishing information or wildlife concerns. For large fish kills call the MA F&W Environmental Police (800) 632-8075.
- Hardy Pond Association, a Project of the Waltham Land Trust: walthamlandtrust.org, (781) 893-3355.
- Waltham Community Garden (GROW), growcommunitygardens.org.
- MA Congress of Lake and Pond Associations (COLAP): macolap.org
- Soil Testing Service, UMASS Amherst, umass.edu/soiltest, (413) 545-2311.
- Waltham Animal Control, (781) 314-3596.
- Waltham Consolidated Works Department, (781) 314-3800.
- Waltham Recycling, (781) 314-3390; city.waltham.ma.us/recycling-department. Website has comprehensive list with instructions of what can be recycled, including appliances and electronics.





Hardy Pond Association
a project of the Waltham Land Trust
PO Box 541120
Waltham MA 02454-1120

ADDRESS SERVICE REQUESTED

Emergency Numbers Inside!

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